

Catalogue of American Amphibians and Reptiles.

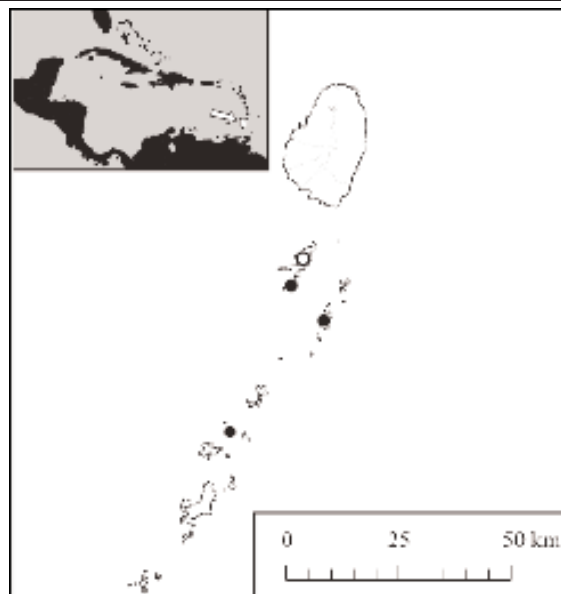
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Sphaerodactylus kirbyi.

***Sphaerodactylus kirbyi* Lazell**
Grenadine Dwarf Gecko

Sphaerodactylus kirbyi Lazell 1994:2. Type-locality, "Slope above Friendship Bay, Bequia, Grenadines." Holotype, Museum of Comparative Zoology, Harvard University (MCZ) 175141, adult male, collected by T. Sinclair, 30 November 1989 (not examined by authors).

• **CONTENT.** No subspecies are recognized.

• **DEFINITION.** *Sphaerodactylus kirbyi* is a small dwarf gecko with a known maximum SVL of 25 mm. Lazell (1994) provided the following descriptions and counts based on six specimens: Scales are smooth; 10–12 (mean = 11.3) lateral dorsals at midbody are convex to subrectiform, subimbricate, and large; 12–16 (mean = 14) middorsals are slightly smaller and convex; 8 midventrals; 8 ventrals are imbricate, cycloid, and large; 10–12 (mean = 10.3) subdigital lamellae, including terminal spheroids; 3 large supralabials, the last subtending the eye; 3–5 small, granular supralabials, which extend to the commissure of the mouth; 15–18 (mean = 15.7) gular scales are smooth, mostly granular, but enlarged and elongate close to the mental; subcaudals are at least twice the width of lateral caudals. Sexual dimorphism is not apparent in meristic characters, excluding the presence



MAP. Distribution of *Sphaerodactylus kirbyi*; the circle represents the type-locality on Bequia Island, the only other known localities on Mustique, Mayreau, and Petit Nevis are marked with dots.

of 4–5 x 24 pale-scaled escutcheons in males.

The dorsal ground color is gray-brown with irregular, small, dark blotches. Individuals may be unpatterned or possess numerous small dark gray blotches. The venter is dark gray, excluding the pale escutcheons. The head has faint stripes. The chin, throat, and sides of the neck have a yellowish wash, and the throat may also have ash-gray streaks. The underside of the tail is mottled rosy-orange. In some individuals, a slate-gray V-shape begins at the region of the hindlimbs and extends onto the base of the tail (Lazell 1994, Malhotra and Thorpe 1999).

• **DIAGNOSIS.** *Sphaerodactylus kirbyi* is best distinguished from its presumably closest relative and neighbor to the north (*S. vincenti*) by having much larger scales (sum of lateral and middorsal scales in *S. kirbyi* is 23–28, whereas *S. vincenti* has 31–36); *S. kirbyi* also lacks the keeled gulars, rich head coloration, and blue-green iris of *S. vincenti*.

• **DESCRIPTIONS.** Descriptions of the species are limited to the original of Lazell (1994) and that in Malhotra and Thorpe (1999).

• **ILLUSTRATIONS.** Lazell (1994) included sketches of male and female paratypes, and a black-and-white photograph is in Daudin and de Silva (2007; the color original is available at www.ahailey.f9.co.uk/appliedherpetology/cariherp.htm).

• **DISTRIBUTION.** *Sphaerodactylus kirbyi* is known to occur on the islands of Bequia (Lazell 1994), Mustique (Powell and Henderson 2006), Petit Nevis, and Mayreau (Daudin and de Silva 2007) in the Grenadines. The geckos on Mustique were found in dry leaf



FIGURE 1. Adult *Sphaerodactylus kirbyi* from Mustique Island, St. Vincent and the Grenadines. Note both the unpatterned (top) and spotted (bottom) variants. Photographs by S. Blair Hedges.

litter in Sea Grape (*Coccoloba* sp.) scrub.

• **FOSSIL RECORD.** None.

• **PERTINENT LITERATURE.** Hass (1996) included the species in a discussion of phylogenetic relationships among Lesser Antillean *Sphaerodactylus*. Powell and Henderson (2005) listed *S. kirbyi* as a species in need of monitoring. Steinberg et al. (2007) compared *S. kirbyi* to *S. vincenti*. Daudin and de Silva (2007) discussed distribution and mentioned that *S. kirbyi* might represent additional populations of *S. vincenti*, but those data are inconclusive (R.S. Thorpe, pers. comm.). The species is included in general works, checklists, and guides by Censky and Kaiser (1999), Malhotra and Thorpe (1999), Kluge (2001), and Powell et al. (1996).

• **ETYMOLOGY.** The specific epithet, *kirbyi*, is a patronym honoring Dr. I. Earle Kirby in recognition of his “contributions [...] to progress and enlightenment in the Caribbean” (Lazell 1994).

LITERATURE CITED

- Censky, E.J. and H. Kaiser. 1999. The Lesser Antillean fauna, p. 181–221. In B.I. Crother (ed.), Caribbean Amphibians and Reptiles. Academic Press, San Diego.
- Daudin, J. and M. de Silva. 2007. An annotated checklist of the amphibians and terrestrial reptiles of the Grenadines with notes on their local natural history and conservation. Appl. Herpetol. 4:163–175.
- Hass, C.A. 1996. Relationships among West Indian geckos of the genus *Sphaerodactylus*: A preliminary analysis of mitochondrial 16S ribosomal RNA sequences, p. 175–194. In R. Powell and R.W. Henderson (eds.), Contributions to West Indian Herpetology: A Tribute to Albert Schwartz. SSAR Contrib. Herpetol., vol. 12. Ithaca, New York.
- Kluge, A.G. 2001. Gekkotan lizard taxonomy. Hamadryad 26:1–209.
- Lazell, J. 1994. A new *Sphaerodactylus* (Sauria: Gekkonidae) from Bequia, Grenada Bank, Lesser Antilles. Breviora (496):1–20.
- Malhotra, A. and R.S. Thorpe. 1999. Reptiles and Amphibians of the Eastern Caribbean. Macmillan Education Ltd., London.
- Powell, R. and R.W. Henderson. 2005. Conservation status of Lesser Antillean reptiles. Iguana 12:62–77.
- and –. 2006. Geographic distribution. *Sphaerodactylus kirbyi*. Herpetol. Rev. 37:495–496.
- , –, K. Adler, and H.A. Dundee. 1996. An annotated checklist of West Indian amphibians and reptiles, p. 51–93 + 8 pls. In R. Powell and R.W. Henderson (eds.), Contributions to West Indian Herpetology: A Tribute to Albert Schwartz. SSAR Contrib. Herpetol., vol. 12. Ithaca, New York.
- Steinberg, D.S., J.L. Hite, R. Powell, and R.W.

Henderson. 2007. *Sphaerodactylus vincenti*. Cat. Amer. Amphib. Rept. (852):1–6.

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